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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,356	08/15/2001	Tameo Yanagino	107101-00036	8870

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EXAMINER

GRAYSAY, TAMARA L

ART UNIT PAPER NUMBER

3636

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/929,356

**Applicant(s)**

YANAGINO ET AL.

**Examiner**

Tamara L. Graysay

**Art Unit**

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Oath/Declaration***

1. In response to the examiner's requirement for a new oath or declaration, applicant asserted, "as indicated on the certified copy of the priority document ... the inventors of the priority document and the instant application are identical." However, the priority document of record is in the Japanese language and applicant has not provided the Office with a translation of any portion of the document. The examiner verified that the "Applicant(s)" listed on the first page of the Japanese application was/were not the applicant(s) of the present application. Thus, the requirement for a new oath/declaration was made.

Further, applicant asserted, "as indicated on ... the oath/declaration filed in the instant case, the inventors of the priority document and the instant application are identical." However, the oath/declaration of record claims benefit without fully complying with 35 U.S.C. 119(a) and MPEP § 201.13, II, C. That is to say, when the United States nonprovisional applicant does not file the foreign application, the oath or declaration is required to state that the assignee, or the legal representative or agent, of the inventor had filed the foreign application on behalf of the inventor. Such a statement was not present in the oath/declaration of record. Thus, the requirement for a new oath/declaration was made.

Applicant has neither provided a new oath or declaration as required by the examiner nor assisted the Office by providing a translation of the relevant portion of the Japanese language priority application as evidence of the identity of the inventors.

Art Unit: 3623

Although applicant has the burden to fully respond to the requirement for a new oath or declaration, the examiner, in an effort to resolve the issue without further delay, has spent additional time to attempt to confirm applicant's first assertion through the Japan Patent Office website. The Internet search (copy attached) revealed:

The inventors listed on the Japan Patent Office website (as retrieved 03 December 2005 from the Patent Abstracts of Japan database) are not identical to the inventors named in the present application. According to the Japan Patent Office, the inventors of Japanese application number 2000-260918 (publication number 2002-073746) are Yanagino Tameisa and Suzaki Yukihiro. The first listed inventor of the Japanese priority application (Yanagino *Tameisa*) is not identical to the first listed inventor of the present application (*Tameo* Yanagino).

In light of this inconsistency, applicant is hereby given another opportunity to comply with the requirements of 35 U.S.C. 119, including 35 U.S.C. 119(a) and MPEP § 201.13, II, C.

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02. The oath or declaration is defective because:

Although it identifies the foreign application, it does not state that the foreign application had been filed by the inventor(s) or by the assignee, or the legal representative or agent, of the inventor, or on behalf of the inventor, pursuant to MPEP § 201.13, II, C.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mujtaba (article, Enterprise modeling and simulation: complex dynamic behavior of a simple model of manufacturing).

a. Claim 1: Mujtaba discloses a method of forecasting future orders of parts comprising the steps of:

- i. determining a time-course record of orders with respect to each part (Mujtaba teaches time analysis of orders for products, e.g., Adder-1, Adder-2, Adder-3, Adder-4)
- ii. determining from each such order record at least one parameter indicating a characteristic of orders after the order rate fell below the predetermined level (Mujtaba compares the results of enterprise modeling and simulation for each of the products, for example, page 101, figures 15, 16 which depict orders after expiration represented by the curved line for each Adder/product)
- iii. classifying the extracted low-order-rate parts into multiple categories and using the parameter indicating the characteristic of orders to calculate for each of the multiple categories an order occurrence probability distribution (Mujtaba suggests categories of commonality at page 101, right column, second paragraph)

- iv. carrying out Monte Carlo simulation based on the calculated order occurrence probability distributions to determine occurrence rate probability distributions of number of orders during a predetermined period (Mujtaba teaches Monte Carlo simulation for analysis of business-oriented economics, e.g., page 82, left column, lines 1-11: a company finance department was modeled and the model subject to Monte Carlo simulation analysis)
- v. forecasting future number of orders of the low-order-rate parts based on the calculated occurrence rate probability distributions of number of orders during the predetermined period (Mujtaba teaches forecasting for products having different order rates, e.g., page 92, right column, third and fourth paragraphs; and the effects of time series, e.g., page 93, figure 8; and probability distribution and simulation, e.g., page 99, right column, fifth paragraph, simulation and least sum of squares analysis).

The examiner takes Official notice that it is within the level of ordinary skill in the operations research art to categorize items, such as suggested by the Mujtaba categories of commonality (page 101, right column, second paragraph). Categorizing would expedite processing and analysis of future products in the same category. The examiner takes Official notice that minimization of end-of-life inventory, i.e., inventory left over that must be written off, is a consideration in the field of product manufacturing. Analysis of low-order-rate products would be directly related to end-of-life inventory and the analysis would aid the reduction of both manufacturing business costs and waste.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mujtaba to include Monte Carlo simulation after categorization of products by characteristics in order to predict performance of future products in the same category and to simulate the demand over the life of a product in order to minimize end-of-life inventory and the associated write-off costs and waste.

- b. Claim 2: Mujtaba teaches repeating the above steps for second low-order-rate parts, i.e., products having different order rates (see page 92, right column, third and fourth paragraphs which teaches forecasting for products having different order rates; as well as page 93 and figure 8 regarding the effects of time series on the different parts).
- c. Claims 3 and 4: Mujtaba teaches forecasting for each of multiple products having different order rates (see page 92, right column, third and fourth paragraphs) and the effects of time series (page 93, figure 8).
- d. Claims 5 and 6: the examiner takes Official notice that a ratio is a comparison of two numbers and such a comparison of orders after expiration to orders before expiration would have been obvious to one of ordinary skill in the art at the time the invention was made insofar as the ratio is a statistical analysis of the order status, such as suggested by the A/F ratio of Mujtaba.

- e. Claim 7: Mujtaba teaches a method of forecasting future orders of parts comprising the steps of:
- i. determining a time-course record of orders with respect to each part and extracting low-order-rate parts whose order records show order rate to have fallen below a predetermined level (Mujtaba teaches time analysis of orders for products, e.g., Adder-1, Adder-2, Adder-3, Adder-4)
  - ii. determining from each such order record an order occurrence probability distribution as a function of time and an order occurrence probability distribution as a function of a ratio of number of orders (Mujtaba compares the results of enterprise modeling and simulation for each of the products, for example, page 101, figures 15, 16 which depict orders after expiration represented by the curved line for each Adder/product)
  - iii. carrying out Monte Carlo simulation based on the calculated order occurrence probability distributions to determine occurrence rate probability distributions of number of orders during a predetermined period (Mujtaba teaches Monte Carlo simulation for analysis of business-oriented economics, e.g., page 82, left column, lines 1-11: a company finance department was modeled and the model subject to Monte Carlo simulation analysis)
  - iv. forecasting future number of orders of the low-order-rate parts based on the calculated occurrence rate probability distributions of number of orders during the predetermined period (Mujtaba teaches forecasting for products having different order rates, e.g., page 92, right column, third and fourth paragraphs; and



the effects of time series, e.g., page 93, figure 8; and probability distribution and simulation, e.g., page 99, right column, fifth paragraph, simulation and least sum of squares analysis).

The examiner takes Official notice that it is within the level of ordinary skill in the operations research art to categorize items, such as suggested by the Mujtaba categories of commonality (page 101, right column, second paragraph). Categorizing would expedite processing and analysis of future products in the same category. The examiner takes Official notice that minimization of end-of-life inventory, i.e., inventory left over that must be written off, is a consideration in the field of product manufacturing.

Analysis of low-order-rate products would be directly related to end-of-life inventory and the analysis would aid the reduction of both manufacturing business costs and waste.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mujtaba to include Monte Carlo simulation after categorization of products by characteristics in order to predict performance of future products in the same category and to simulate the demand over the life of a product in order to minimize end-of-life inventory and the associated write-off costs and waste.

f. Claim 8: the examiner takes Official notice that a ratio is a comparison of two numbers and such a comparison of orders after expiration to orders before expiration would have been obvious to one of ordinary skill in the art at the time the invention was made insofar as the ratio is a statistical analysis of the order status, such as suggested by the A/F ratio of Mujtaba.

- g. Claim 9: Mujtaba suggests classification into multiple categories (categories of commonality at page 101, right column, second paragraph).
- h. Claims 10 and 11: Mujtaba teaches checking accuracy of forecast number of orders and changing categories based on the checking (checking accuracy of forecast number of orders and making changes based on the comparison at pages 91-92, A/F ratio, comparing forecasted demand with actual demand as they relate to product orders; additionally, using initial orders as early indicators of a life cycle and revising the forecast after a certain period of time at page 94, right column, second paragraph).
- i. Claims 12-21: The system claims, are unpatentable in view of Mujtaba, for the same reasons as set forth in the rejection above.

***Response to Arguments***

4. Applicant's arguments filed 25 October 2005 have been fully considered but they are not persuasive.

The argument that the reference does not teach the claimed invention is not persuasive. The Office action has been revised to more match the claimed clauses to the portions of the reference (as applied in the last Office action). The previous Office action provided the details that were encompassed by the data analysis performed in the Mujtaba reference in the field of business-oriented economics. The particular portion of business that is capable of being analyzed using the Mujtaba model and simulation is a matter of choice that is within the level of ordinary skill in the field of management analysis and statistics. Applicant has not disclosed any particular problem to be solved with low-order-rate products that is included in the scope of the claim but rather has indicated that the time factors that are involved are long. A statistician or analyst in the business field would have found obvious the claimed subject matter, as discussed in the rejection above.

Applicant argues that Mujtaba does not disclose the claimed steps. However, Mujtaba is directed to order delivery performance, which includes multiple product analysis. Therefore, the Mujtaba method and system of modeling and simulation reference would apply equally well to low-order-rate products. Such an application of the Mujtaba method and system would reduce end-of-life inventory costs and waste as noted in the rejection above.

***Conclusion***


5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is (571) 272-6728. The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Cuomo, can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tamara L. Graysay  
Examiner  
Art Unit 3623